A NEW POISONOUS MUSHROOM

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A most interesting case of mushroom poisoning was recently brought to my attention by Dr. W. C. Deming, of Westchester, who poisoned himself and the members of his family with a small mushroom found growing in the grass at Morris Park. This mushroom does not belong to the class usually considered poisonous, and its properties have never before been tested. This is only another argument in favor of not eating mushrooms of any kind unless they are perfectly well known. The chances in this case were about one in a thousand, but Dr. Deming happened to get the one.

On the very day that the poisoning occurred, I had noticed two small mushrooms growing together in quantity on the lawn in front of the museum building of the New York Botanical Garden. These were carefully studied and the accompanying illustration made of them. The two kinds brought in by Dr. Deming from Morris Park proved to be the same that I had collected and studied here.

The non-poisonous kind, *Panaeolus papilionaceus,* is two or three inches high and one-half to three-quarters of an inch broad, with conical cap and perfectly smooth, smoky-brown upper surface, the lower surface being brownish-black and somewhat grayish-speckled. If the cap is removed and placed on a piece of white paper under a tumbler, the spore-print is black.

The poisonous kind, *Inocybe infida,* is slightly larger, with semiorbicular cap surmounted by a prominent nipple, which is dark reddish-brown, while the rest of the upper surface is light tawny-brown. The upper surface also differs from that of the non-poisonous kind in being silky-scaly and shining. The lower surface differs in being much lighter, pale yellowish instead of brownish-black, and the spore-print is about the color of oak wood. Most of these differences may be seen in the illustration.

The fact that Dr. Deming is a practising physician, as well as a student of fungi, makes his observations in this case exceedingly valuable. Replying to a letter requesting detailed information, Dr. Deming wrote me on June 22 as follows:

"I thank you for your letter and the interest you take in the mushroom incident. I was once vice-president of the N. Y. Mycological Club, about the time when Professor Underwood was its president, and so I should have known better than to break my heretofore carefully observed rule not to eat any

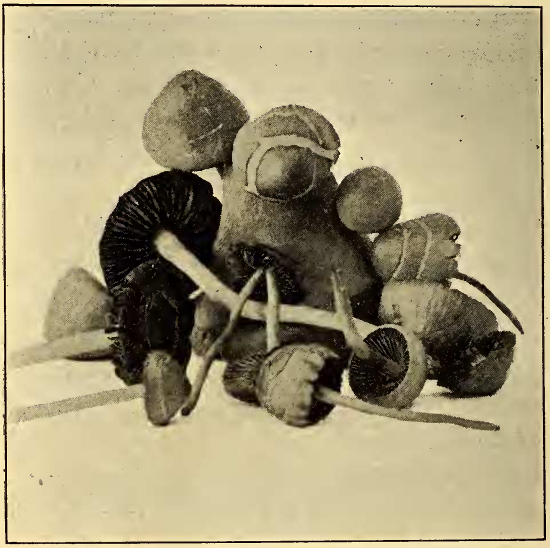


FIG. 3. *Panaeolus papilionaceus* (Bull.).

mushrooms in quantity that I did not know to be perfectly safe. Of the two kinds left with you, the smaller, dark ones I have eaten freely for several years and they are excellent. The other kind I was not familiar with, but it was growing in abundance on the lawn of the Morris Park Club House on June 14.

"I here transcribe notes made on that or the following evening: June 14, '09, about 11:30 A. M., my son and I gathered about a quart of mushrooms, mostly of the unknown variety and some of the variety frequently eaten. No other kind was gathered. These were stewed and served on toast at 1 P. M. I ate only one-half slice with the mushroom thereon, some bread and

butter, two cups of weak tea, a little more than one-half a stuffed egg, with lettuce and mayonnaise dressing.

"Directly after lunch I smoked one half a cigarette as usual. On finishing this, I began to wonder if this or the mushroom had disagreed with me, on account of a slight "queer" feeling which I cannot accurately describe, but it was so little at first that I dismissed it from my mind. In a few minutes, however, I gradually began to get a fullness in the head and a rapid heart action as if I had taken nitroglycerin. Then I began to sweat, with a feeling of heat over the body, so that my clothing was drenched, even my outer clothing requiring changing later. At the same



FIG. 4. *Inocybe infida* (Peck).

time there was no nausea nor prostration nor other bad feeling, and I attended to a man with a wound in my office and then to other members of the family without difficulty, though a little confused in mind perhaps. A little after this, perhaps forty-five minutes after eating the mushrooms, I washed out my stomach with a tube and later took about an ounce of castor oil. Soon after, but long before the oil operated, I had a disagreeable sense of pressure, almost pain, in the lower bowel, accompanied for a little while by slight abdominal soreness or pain. All symptoms gradually subsided and by evening I was as well as ever except for a little feeling of exhaustion.

"My wife, 25 years old, ate one whole slice of toast with mushrooms, two half eggs stuffed, with lettuce and mayonnaise, tea, bread and butter. About half an hour later she felt nauseated and dizzy and lay down. I gave her five glasses of warm water, after which she vomited the egg, but saw no mushrooms. She then took castor oil.

"Mrs. A., 65 years old, ate the same amount of mushrooms, several slices of bread and butter, a cup of tea, but no eggs nor salad. When asked, said she felt slight indigestion, but otherwise well.

"My son, 5 years old, ate same amount, but no eggs nor salad. Immediately after lunch he had a diarrheal movement containing mushrooms. He was given ipecac and warm water and vomited some mushrooms.

"Sophie, maid, aged 30, tasted mushrooms. Felt nauseated soon after. Given mustard and water, but did not vomit. Later, castor oil and was purged and somewhat prostrated. Hattie, maid, aged 38, tasted mushrooms. Belched gas soon after. Not sick. Esther, maid, aged 24, tasted; no effects.

"There was no peculiar taste to the cooked mushrooms, perhaps a very evanescent bitterness in the raw state. I thought perhaps the combination of the eggs and mayonnaise with the mushrooms had something to do with the effects, as my wife and I, the only ones who ate both in any amount, were the chief sufferers. In my case the beating of the heart, full head and sweating were very marked, though I ate but half as much as the others."

It is impossible to tell until a chemical analysis is made just what poison this mushroom contains. It is probably not narcotic, as in the case of the deadly amanita, since the effects appear too quickly. On the other hand, there is nothing in the taste of the mushroom, according to my own experiments with fresh specimens, to suggest an irritating poison. It is altogether likely that this species, belonging as it does to a group quite different from any heretofore recognized as containing poisonous species, will be found to contain a new poison with effects heretofore undescribed.

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